

## BEST AVAILABLE COPY

CONFIDENTIAL

## EMPLOYEE INVENTION DECLARATION

# 10649598

To: Nam & Nam  
World Patent & Law Firm  
(To)

(From)

	Control No.: 20030226	
	Filing Date: Feb. 30, 2003 [sic]	
	Patent Representative: Youn-jung Lee	
	Office Manager: Tai-uk Nam	

Title of the Invention	Write briefly and conclusively so that the details of the invention are expressed most appropriately. Assembly for sign applications based on LED
Key Point of the Invention	Write the key point of the invention conclusively centering on its embodiment and effect (For example, configured for ..., to achieve...) Deals with an invention that allows easy installation of an AC/DC type assembly based on LED modularization in a signboard or a sign and modularization.

All inventors below transfer the right to acquire a patent on this invention (design) to Atto Co., Ltd. pursuant to our compensation according to the Employee Invention Regulations pursuant to the provisions of Korea Patent Act Articles 39 and 40.

Representative Inventor: (Name) Sun-tae Kim <signature>

	Name	Company	Position	Employee No.	TEL	Resident Reg. No.	Address	Signature
INVENTOR	(Korean) Kim Sun Tae	Team	Vice President		031-499-4321	661206-1394526	Hana Apt. 103-1301, 362 Kalsan-2-dong, Bupyeong-ku, Incheon Metropolitan City	<Signature>
	(English) Kim, Sun Tae							
	(Korean)	Team						
	(English)							
	(Korean)	Team						
	(English)							
	(Korean)	Team						
	(English)							
	(Korean)	Team						
	(English)							
(Korean)	Team							
(English)								

(Note) Check any applicable items below, check with the Research Management Team, and write in inventor(s):

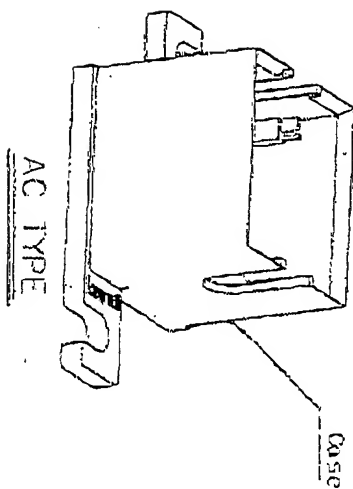
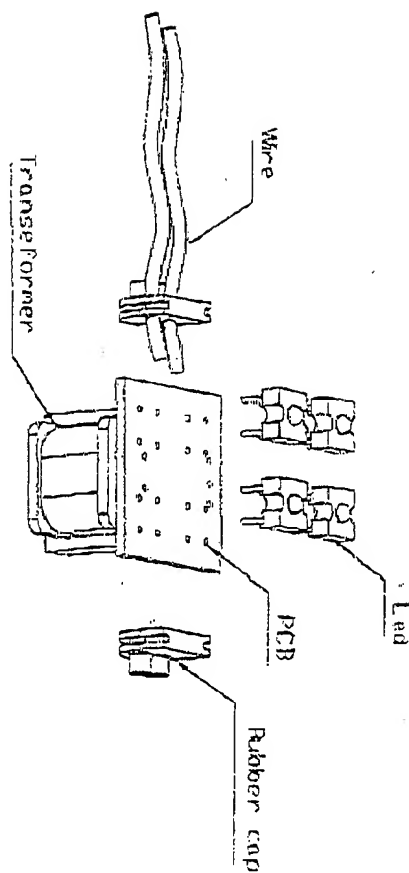
- ☐ It is difficult to identify person(s) who contributed to this invention or there are too many inventors.  
☐ There exist external inventor(s) for this invention.  
☐ There exists an agreement with an external organization in regard to its right to this invention.

Type	<input type="checkbox"/> Patent (Utility Model) <input type="checkbox"/> Design	Application	<input type="checkbox"/> Automobile model application (Automobile Model: ) <input type="checkbox"/> Technical development task (Task: ) <input type="checkbox"/> No application <input type="checkbox"/> Other ( )
Related Application of Inventor	Application No.: (Invention Title)		
Related Prior Art	<input type="checkbox"/> Improved invention based on our / other company products (Company: ) <input type="checkbox"/> Improved invention relative to prior patents (Patent No.: ) <input type="checkbox"/> Improved invention based on the literature, etc. <Attach literature> (Reference: )	Technical Development Stage	<input type="checkbox"/> Idea stage <input type="checkbox"/> Application review in progress <Evidenced by: conceptual design> <input type="checkbox"/> Application scheduled <Evidenced by: Proto drawing> (Part No.: ) <input type="checkbox"/> Application (applicable) state <Evidenced by: mass production drawing> (Part No.: )

Comparison with the closest prior art internally and externally	<input type="checkbox"/> Absolutely superior <input type="checkbox"/> Slightly superior	<input type="checkbox"/> Significantly superior <input type="checkbox"/> Equal	Product Plan	<input type="checkbox"/> Apply current project <input type="checkbox"/> Apply future project <input type="checkbox"/> Future review item <input type="checkbox"/> No plan
Difficulty in avoiding designs by other companies	<input type="checkbox"/> Impossible <input type="checkbox"/> Slightly difficult	<input type="checkbox"/> Significantly difficult <input type="checkbox"/> Negligible		
Potential application by other companies	<input type="checkbox"/> Large <input type="checkbox"/> Slight	<input type="checkbox"/> Significant <input type="checkbox"/> Negligible	Difficulty in detecting infringement by others	<input type="checkbox"/> Easy to detect <input type="checkbox"/> Difficult to detect (Verification method: )
Cost savings effect (compared with existing specification)	<input type="checkbox"/> Large-scale saving <input type="checkbox"/> No change	<input type="checkbox"/> Significant saving <input type="checkbox"/> Cost increase	Opinion on application	<input type="checkbox"/> Application <input type="checkbox"/> Application not required (Reason: )
Quality improvement effect (compared with existing specification)	<input type="checkbox"/> Large <input type="checkbox"/> Slight	<input type="checkbox"/> Significant <input type="checkbox"/> Negligible	Need for foreign applications	<input type="checkbox"/> Domestic application only <input type="checkbox"/> Foreign applications required (Country: )
Performance improvement effect (compared with existing specification)	<input type="checkbox"/> Large <input type="checkbox"/> Slight	<input type="checkbox"/> Significant <input type="checkbox"/> Negligible	Need for urgent application	<input type="checkbox"/> Required (Reason: ) <input type="checkbox"/> Not required
Customer attraction	<input type="checkbox"/> Large <input type="checkbox"/> Slight	<input type="checkbox"/> Significant <input type="checkbox"/> Negligible	Are inventors correct in their opinion?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other opinion				
Patentability	<input type="checkbox"/> Present	<input type="checkbox"/> Negligible	<input type="checkbox"/> Absent	Opinions of research management team
Scope of rights	<input type="checkbox"/> Wide	<input type="checkbox"/> Narrow	<input type="checkbox"/> Very narrow	Foreign Application
Efforts for prior art survey	<input type="checkbox"/> Faithfully performed survey	<input type="checkbox"/> Good	<input type="checkbox"/> Additional survey required	
Contents	<input type="checkbox"/> Good	<input type="checkbox"/> Need for supplementation	<input type="checkbox"/> Impossible to understand contents	
Patent Utilization	<input type="checkbox"/> Target of aggressive exercise of rights (infringement, monitoring, sales, licensing, etc.) <input type="checkbox"/> Target of defensive application (Must be performed [defended] by our company) <input type="checkbox"/> Utilization difficulty			
Application	<input type="checkbox"/> Patent application <input type="checkbox"/> Design application (Reason: <input type="checkbox"/> Incomplete application <input type="checkbox"/> Re-writing needed <input type="checkbox"/> Incomplete invention <input type="checkbox"/> Difficult to identify infringement <input type="checkbox"/> Other       )			Other Opinions
Application	<input type="checkbox"/> Utility model application <input type="checkbox"/> Application reserved (Reason: <input type="checkbox"/> Additional explanation required <input type="checkbox"/> No patentability <input type="checkbox"/> Insufficient survey of prior art <input type="checkbox"/> Negligible benefits from application       )			
Inventor Decision	<input type="checkbox"/> No issues <input type="checkbox"/> Amendment needed following verification			



1	2	3	4	5	6	7	8
				NO	DESCRIPTION	QTY	REMARK



1	2	3	4	5	6	7	8
REV	DESCRIPTION	DATE	BY	UNIT	SCALE	DATE	SHEET
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8

1	2	3	4	5	6	7	8

사 외 비  
(CONFIDENTIAL)

수신 : 남앤드남국제특허법률사무소 직무발명 신고서

( 수 신 )

( 발 신 )


관 리 번 호 : 20030226  
신 고 일 자 : 2003. 2. 30.  
특허 담당자 : 이 윤정  
사무소담당자 : 남 태욱


발명의 명칭	발명내용을 가장 적절하게 표현할 수 있도록 간단 명료하게 함축적으로 기재 엘이디를 이용한 간판용 조립체
발명의 요지	본 발명의 요지를 구성 및 효과를 중심으로 함축적으로 기재(~하게 구성함으로써, ~하기 위한 것임) LED를 MODULE화하여 간판 및 SIGN물에 손쉽게 설치하고 AC/DC TYPE으로 모듈화할 수 있는 발명에 관한 것 입니다.

하기 발명자 전원은 특허법 제39조 및 제40조의 규정에 의거한 당사의 직무발명보상규정에 따라  
본 발명(고안)에 대하여 특허받을 수 있는 권리를 아토(ATTO CO., LTD)에 양도합니다.

대표발명자 : (성명) 김 선 태 *Kim Sun Tai*

발 명 자	성 명	소 속	직 위	사 번	TEL.	주민등록번호	주 소	서 명
	(한) 김 선 태	팀	부사장		031-499-4321	661206-1394526	인천광역시 부평구 갈산2동 362 하나 아파트 103동 1301호	<i>Kim Sun Tai</i>
	(영) KIM, SUN TAE							
	(한)	팀				-		
	(영)							
	(한)	팀				-		
	(영)							
	(한)	팀				-		
	(영)							

(주의) 아래에 해당사항 있는 경우, 해당란에 CHECK하시고, 연구관리팀에 확인 후 발명자 기재 요망!

- ☐ 본 발명에 기여한 자를 특정하기 곤란하거나, 발명자가 과다한 경우  
☐ 본 발명에 대한 사외 발명자가 존재하는 경우  
☐ 본 발명의 권리귀속에 대한 외부기관과의 계약관계가 존재하는 경우

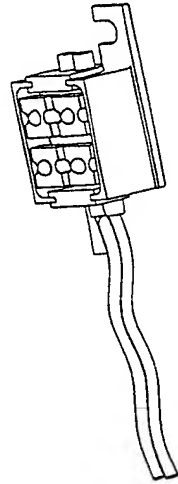
종 류	<input type="checkbox"/> 특허(실용신안) <input type="checkbox"/> 의장	적용여부	<input type="checkbox"/> 차종적용 (차종명: ) <input type="checkbox"/> 기술개발과제 (과제명: ) <input type="checkbox"/> 미적용 <input type="checkbox"/> 기타 ( )
발명자의 관련 출원	출원번호 : (발명명칭: )		
관련 선행기술	<input type="checkbox"/> 당사/타사제품 참조한 개량발명 (회사명: ) <input type="checkbox"/> 선행특허 참조한 개량발명 (특허번호: ) <input type="checkbox"/> 문헌 등 참조한 개량발명 <문헌첨부> (문헌명: )	기 술 개 발 단 계	<input type="checkbox"/> IDEA착상단계 <input type="checkbox"/> 적용검토중 <증빙자료: 설계 구상서> <input type="checkbox"/> 적용예정 <증빙자료: PROTO도면> (PART NO.: ) <input type="checkbox"/> 적용(가능)상태 <증빙자료: 양산도면> (PART NO.: )

사내외 최선행 기술과의 비교	<input type="checkbox"/> 절대우위 <input type="checkbox"/> 상당우위 <input type="checkbox"/> 약간우위 <input type="checkbox"/> 동등수준	제품화 계획	<input type="checkbox"/> 현PROJECT 적용 <input type="checkbox"/> 차기PROJECT 적용 <input type="checkbox"/> 추후 검토대상 <input type="checkbox"/> 계획 없음	
타사의 회피설계 난이도	<input type="checkbox"/> 불가 <input type="checkbox"/> 상당곤란 <input type="checkbox"/> 약간곤란 <input type="checkbox"/> 용이			
타사적용 가능성	<input type="checkbox"/> 큼 <input type="checkbox"/> 상당있음 <input type="checkbox"/> 약간있음 <input type="checkbox"/> 미약	타사침해발견 난이도	<input type="checkbox"/> 발견용이 <input type="checkbox"/> 발견곤란 (확인방법: )	
원가절감효과 (기존사양대비)	<input type="checkbox"/> 절감규모 큼 <input type="checkbox"/> 약간절감 <input type="checkbox"/> 기존과 비슷 <input type="checkbox"/> 원가상승	출원여부에 대한 의견	<input type="checkbox"/> 출원 <input type="checkbox"/> 출원 불필요 (사유: )	
품질개선효과 (기존사양대비)	<input type="checkbox"/> 큼 <input type="checkbox"/> 상당있음 <input type="checkbox"/> 약간있음 <input type="checkbox"/> 미약	외국출원 필요성	<input type="checkbox"/> 국내출원만 <input type="checkbox"/> 외국출원 필요 (국가명: )	
성능향상효과 (기존사양대비)	<input type="checkbox"/> 큼 <input type="checkbox"/> 상당있음 <input type="checkbox"/> 약간있음 <input type="checkbox"/> 미약	긴급출원 필요성	<input type="checkbox"/> 필요 (사유: ) <input type="checkbox"/> 불필요	
고객 흡인력	<input type="checkbox"/> 큼 <input type="checkbox"/> 상당있음 <input type="checkbox"/> 약간있음 <input type="checkbox"/> 미약	발명자 결정은 올바른가?	<input type="checkbox"/> 예 <input type="checkbox"/> 아니오	
기타의견				

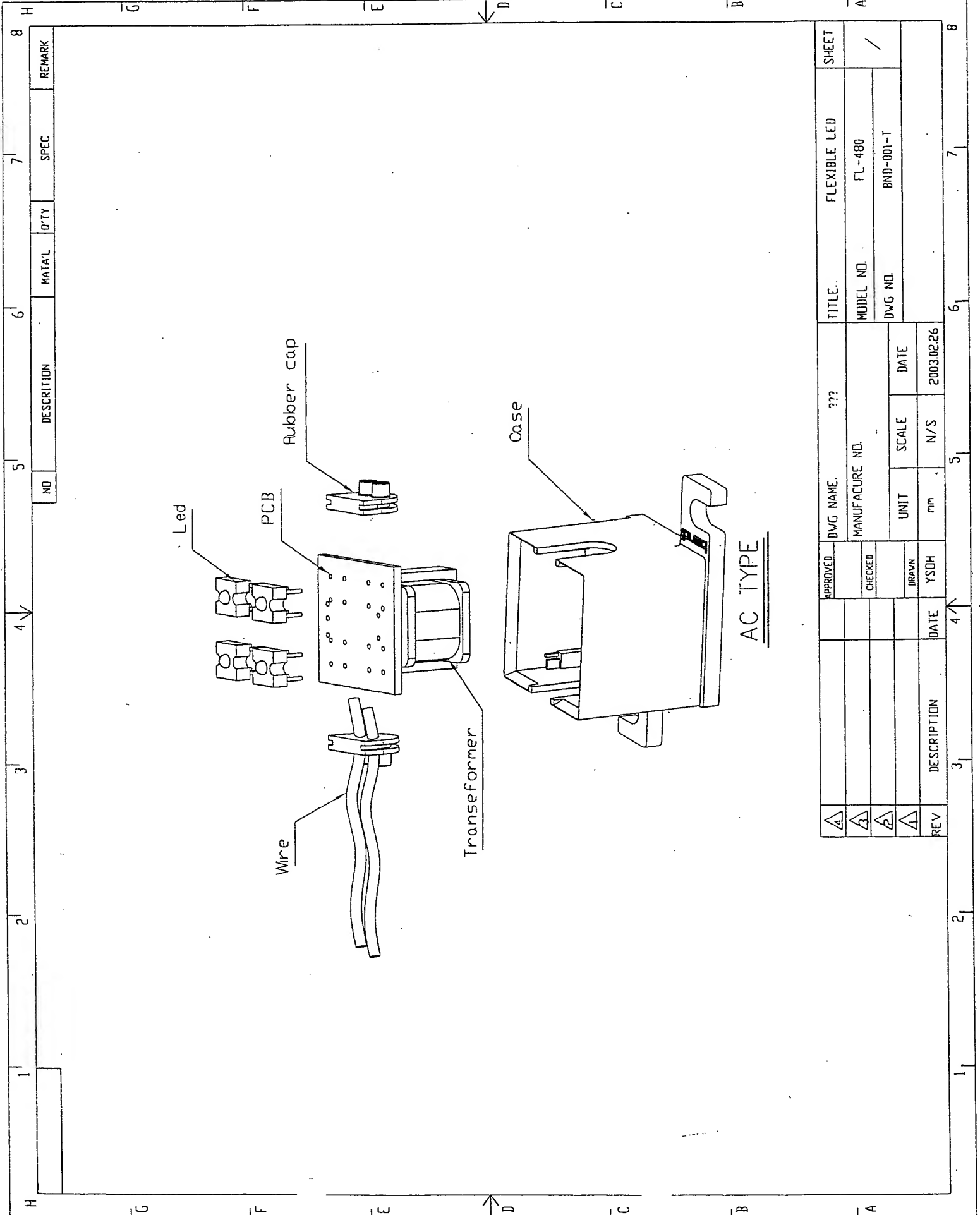
특허성 유무	<input type="checkbox"/> 있음 <input type="checkbox"/> 미약 <input type="checkbox"/> 없음	연구관리팀 의견란	
권리범위	<input type="checkbox"/> 넓게 작성 <input type="checkbox"/> 비교적 협소 <input type="checkbox"/> 매우 협소	외국출원여부	
선행기술조사 충실도	<input type="checkbox"/> 충실히 수행 <input type="checkbox"/> 양호 <input type="checkbox"/> 추가조사필요		
내용 충실도	<input type="checkbox"/> 양호 <input type="checkbox"/> 내용보충필요 <input type="checkbox"/> 내용파악불가		
특허활용 가능성	<input type="checkbox"/> 적극적 권리행사대상(침해 감시, 매각, LICENSING 등) <input type="checkbox"/> 방어적 출원대상(당사실시 확보) <input type="checkbox"/> 활용 곤란		
출원여부	<input type="checkbox"/> 특허출원 <input type="checkbox"/> 실용신안출원 <input type="checkbox"/> 의장출원 <input type="checkbox"/> 출원보류 (사유: △기재사항불비      △내용보충필요 △내용재작성 필요 △특허성 없음 △미완성 발명      △선행기술조사 미흡 △침해발견 곤란      △출원이익 적음 △기타)	기타 의견	
발명자결정	<input type="checkbox"/> 문제없음 <input type="checkbox"/> 확인후 수정필요		

NO	DESCRIPTION	MAT'L	Q'TY	SPEC	REMARK
----	-------------	-------	------	------	--------



# DC TYPE

△	APPROVED	DWG NAME.	???	TITLE.	FLEXIBLE LED	SHEET
△	CHECKED	MANUFACTURE NO.		MODEL NO.	FL-480	/
△	DRAWN	UNIT	SCALE	DWG NO.	BND-001-T	
△	YOSH	mm	N/S	DATE		
REV	DESCRIPTION	DATE				

[illegible][illegible]



**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**